

can promote a name or business. In one aspect of the invention, the information within the database is arranged hierarchically. In this aspect, there are a plurality of discrete geographic vicinities (each set of positional coordinates corresponding to one discrete location within the geographic vicinity). The system thus provides for hierarchically selecting any of the discrete vicinities from the port in a hierarchical manner.

In still another aspect of the invention, database apparatus is provided for storing information about a plurality of items of interest. As above, that information includes, for each of the items of interest, positional coordinates, a geographic vicinity, and at least one associated category. A communications link provides for communicating between a user of the database apparatus and a remote port. The database apparatus further provides for transmitting a portion of the information to a user via the link upon receipt of a request signal representative of a geographic vicinity and a selected category of the items of interest. That transmitted portion of the information includes an identification of a position for the items of interest within the selected category and geographic vicinity.

The invention also provides, in another aspect, a remote access port for remotely accessing a selected category of items of interest in a selected geographic vicinity from a database such as described above. The port includes means for generating a request signal representative of a selected category and a selected geographic vicinity of the items of interest in response to inputs by a user of the port. A user interface accepts the inputs and indicates the position of each of the items of interest within the selected category and geographic vicinity.

In another aspect, the information includes additional detail for at least one of the items of interest, and the port further includes means for (i) generating a signal representative of a selection of at least one of the items of interest, and (ii) communicating the additional detail to the user.

The invention also provides a method for remotely determining the position of a selected category of items of interest in a selected geographic vicinity from a database, comprising the steps of: (i) storing information about a plurality of items of interest in the database, the information including, for each of the items of interest, positional coordinates, a geographic vicinity, and at least one associated category; (ii) accessing the database from a remote location and over a communication link; (iii) communicating, from the remote location, information representative of a selected category and a selected geographic vicinity to the database; and (iv) transmitting a portion of the information from the database and to the user over the link, the information including, at least, identification of a position for the items of interest within the selected category and geographic vicinity.

The invention is next described further in connection with preferred embodiments, and it will be apparent that various additions, subtractions, and modifications can be made by those skilled in the art without departing from the scope of the invention.

### BRIEF DESCRIPTION OF THE ILLUSTRATED EMBODIMENTS

A more complete understanding of the invention may be obtained by reference to the drawings, in which:

FIG. 1 schematically illustrates a system constructed according to the invention;

FIG. 2 shows a typical graphical illustration locating items of interest and which can be displayed to a user of the system of FIG. 1;

FIG. 3 shows a user interface display of various world-wide countries providing selectable locations according to the invention and which can be displayed to a user of the system of FIG. 1;

FIG. 3A shows a user interface display of a map of the United States providing selectable locations according to the invention and which can be displayed to a user of the system of FIG. 1;

FIG. 3B shows a user interface display of a map of California providing selectable locations according to the invention and which can be displayed to a user of the system of FIG. 1;

FIG. 3C shows a user interface display of various selectable locations within greater Los Angeles according to the invention and which can be displayed to a user of the system of FIG. 1;

FIG. 4 illustrates a top level process flow, according to the invention, for providing information to a user at the remote port of FIG. 1;

FIG. 4A shows a hierarchical structure of geographical vicinities, according to the invention;

FIG. 5 shows a typical menu of categories of items of interest which are selectable by a user of the system of FIG. 1;

FIGS. 6A and 6B illustrate various components and methods, according to the invention, for constructing a communications link suitable for use in the system of FIG. 1;

FIGS. 7A and 7B illustrate various remote port display technologies, according to the invention, which are suitable for use within the remote port of the system of FIG. 1;

FIG. 8 illustrates a system constructed according to the invention and which includes a mobile remote port for accessing the locations of the selected items of interest;

FIG. 9 schematically illustrates system architecture, constructed according to the invention, which forms a database suitable for use as the database of FIG. 1, and which services both phone and fax information and internal administrative data;

FIG. 10 shows one system architecture according to the invention, and which includes a host database and a remote port;

FIG. 11 illustrates process flow and system architecture for interfacing between user inputs and the database, in accord with the invention; and

FIG. 12 shows one representative display or print-out, according to the invention, which includes an advertising field associated with the items of interest.

### DETAILED DESCRIPTION

FIG. 1 illustrates a system 10 constructed according to the invention. A database 12 stores information about the items of interest, including information about locating the items of interest. The database 12 includes an information controller 14 which communicates with a remote access port 16 via a communications link 18 and which controls the access and flow of information into and out of the database 12. The information within the database 12 is accessible by the remote access port 16 upon request by a user of the port 16. Accordingly, the port 16 preferably includes a user interface section 20 which provides a graphical display 22, keyboard 24, and mouse tracker 25 (for pointing and clicking on selected display items within the display 22).

Specifically, the information within the database 12 includes, for each of the items of interest, positional